

AMENDMENTS TO THE CLAIMS

Claims 1-21 were originally filed in the Application on April 12, 2004. A Preliminary Amendment that accompanied the Application cancelled original claims 1-21, and added new claims 22-52. All of claims 22-52 were rejected in the Office action mailed August 22, 2005, to which Applicants filed a response on November 17, 2005. Claims 22-26, 29-34, 36-41, 44-49 and 52 stand rejected, and claims 27, 28, 35, 42, 43, 50 and 51 are objected to in the Office action of February 9, 2006. Claims 26, 27, 35, 42 and 50 are cancelled and new claims 53-77 are added by this amendment. Claims 22, 30, 37, 45, 53, 59, 66 and 72 are independent claims. Claims 23-29, 31-36, 38-44, 46-52, 54-58, 60-65, 67-71 and 73-77 depend, either directly or indirectly, from independent claims 22, 30, 37, 45, 53, 59, 66 and 72, respectively.

Listing of Claims:

Claims 1-21 (Canceled).

Claim 22. (Currently amended) A circuit for processing data representative of voice signals, the circuit having two signal paths comprising:

in a first signal path,

a queue for storing first voice data representative of a first voice signal; and

a digital to analog converter having an output, the digital to analog converter for receiving the first voice data from the queue, the digital to analog converter converting the first voice data to a first analog representation of the first voice signal, and,

in a second signal path,

an analog to digital converter having an input, the analog to digital converter for converting a second analog representation of a second voice signal to second voice data; and

signal processing circuitry for removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data, and
wherein the circuit further comprises at least one processor that enables processing of received voice packets into the first voice data and processing of the second voice data into transmit voice packets; and
wherein the at least one processor enables adjusting the operation of the queue according to a rate of packet arrival.

Claim 23. (Previously presented) The circuit of claim 22 wherein the signal processing circuitry comprises a subtractor.

Claim 24. (Previously presented) The circuit of claim 22 wherein the signal processing circuitry delays the voice data representative of the portion of the first voice data.

Claim 25. (Previously presented) The circuit of claim 22 wherein the portion removed comprises undesirable components of the first voice signal present in the second voice signal.

Claim 26. (Cancelled)

Claim 27. (Cancelled)

Claim 28. (Previously presented) The circuit of claim 22 wherein the operation of the queue is adjusted based upon a propagation delay of a communication network.

Claim 29. (Previously presented) The circuit of claim 22 further comprising:
at least one signal coupling circuit for coupling voice signals from a two wire telephone network connection to the input of the analog to digital converter; and

the at least one signal coupling circuit for coupling voice signals from the output of the digital to analog converter to the two wire telephone network connection.

Claim 30. (Currently amended) A method of processing data representative of voice signals, the method comprising:

receiving first voice data representative of a first voice signal;

queuing the first voice data;

converting the first voice data into a first analog representation of the first voice signal;

converting a second analog representation of a second voice signal into second voice data; and

removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data; and

adjusting queuing and converting the first voice data according to a rate of packet arrival.

Claim 31. (Previously presented) The method of claim 30 wherein removing comprises subtracting.

Claim 32. (Previously presented) The method of claim 30 wherein removing comprises delaying the portion of the first voice signal represented by the first voice data.

Claim 33. (Previously presented) The method of claim 30 wherein the portion removed comprises undesirable components of the first voice signal present in the second voice signal.

Claim 34. (Previously presented) The method of claim 30 further comprising:

processing received voice packets to produce the first voice data; and

processing the second voice data to produce transmit voice packets.

Claim 35. (Cancelled)

Claim 36. (Previously presented) The method of claim 30 further comprising:
coupling to a two-wire telephone network connection, voice signals representing the first analog representation of the first voice signal; and

coupling voice signals from the two wire telephone network connection to produce a voice signal representing the first analog representation of the first voice signal and the second analog representation of the second voice signal.

Claim 37. (Currently amended) A machine-readable storage, having stored thereon a computer program having a plurality of code sections for processing data representative of voice signals, the code sections executable by a machine for causing the machine to perform the operations comprising:

receiving first voice data representative of a first voice signal;
queuing the first voice data;
converting the first voice data into a first analog representation of the first voice signal;
converting a second analog representation of a second voice signal into second voice data; and

removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data; and

adjusting queuing and converting the first voice data according to a rate of packet arrival.

Claim 38. (Previously presented) The machine-readable storage of claim 37 wherein removing comprises subtracting.

Claim 39. (Previously presented) The machine-readable storage of claim 37 wherein removing comprises delaying the portion of the first voice signal represented by the first voice data.

Claim 40. (Previously presented) The machine-readable storage of claim 37 wherein the portion removed comprises undesirable components of the first voice signal present in the second voice signal.

Claim 41. (Previously presented) The machine-readable storage of claim 37 wherein the operations further comprise:

processing received voice packets to produce the first voice data; and

processing the second voice data to produce transmit voice packets.

Claim 42. (Cancelled)

Claim 43. (Previously presented) The machine readable storage of claim 37 wherein the operations further comprise:

adjusting queuing and converting the first voice data according to a propagation delay of a communication network.

Claim 44. (Previously presented) The machine-readable storage of claim 37 wherein the operations further comprise:

coupling to a two-wire telephone network connection, voice signals representing the first analog representation of the first voice signal; and

coupling voice signals from the two wire telephone network connection to produce a voice signal representing the first analog representation of the first voice signal and the second analog representation of the second voice signal.

Claim 45. (Currently amended) A system for processing data representative of voice signals, the system comprising:

at least one processor that enables receiving first voice data representative of a first voice signal;

the at least one processor enabling queuing the first voice data;

the at least one processor enabling converting the first voice data into a first analog representation of the first voice signal;

the at least one processor enabling converting a second analog representation of a second voice signal into second voice data; ~~and~~

the at least one processor enabling removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data; and

wherein the at least one processor enables adjusting queuing and converting the first voice data according to a rate of packet arrival.

Claim 46. (Previously presented) The system of claim 45 wherein removing comprises subtracting.

Claim 47. (Previously presented) The system of claim 45 wherein removing comprises delaying the portion of the first voice signal represented by the first voice data.

Claim 48. (Previously presented) The system of claim 45 wherein the portion removed comprises undesirable components of the first voice signal present in the second voice signal.

Claim 49. (Previously presented) The system of claim 45 wherein the at least one processor enables processing of received voice packets to produce the first voice data, and enables processing of the second voice data to produce transmit voice packets.

Claim 50. (Cancelled)

Claim 51. (Previously presented) The system of claim 45 wherein the at least one processor enables adjusting queuing and converting the first voice data according to a propagation delay of a communication network.

Claim 52. (Previously presented) The system of claim 45 wherein the voice signals representing the first analog representation of the first voice signal are communicatively coupled to a two-wire telephone network connection, and voice signals from the two wire telephone network connection are communicatively coupled to produce a voice signal representing the first analog representation of the first voice signal and the second analog representation of the second voice signal.

Claim 53. (New) A circuit for processing data representative of voice signals, the circuit having two signal paths comprising:

in a first signal path,

a queue for storing first voice data representative of a first voice signal; and

a digital to analog converter having an output, the digital to analog converter for receiving the first voice data from the queue, the digital to analog converter converting the first voice data to a first analog representation of the first voice signal, and,

in a second signal path,

an analog to digital converter having an input, the analog to digital converter for converting a second analog representation of a second voice signal to second voice data;

signal processing circuitry for removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data; and

wherein the operation of the queue is adjusted based upon a propagation delay of a communication network.

Claim 54. (New) The circuit of claim 53 wherein the signal processing circuitry comprises a subtractor.

Claim 55. (New) The circuit of claim 53 wherein the signal processing circuitry delays the voice data representative of the portion of the first voice data.

Claim 56. (New) The circuit of claim 53 wherein the portion removed comprises undesirable components of the first voice signal present in the second voice signal.

Claim 57. (New) The circuit of claim 53 further comprising:
at least one processor that enables processing of received voice packets into the first voice data; and

the at least one processor enabling processing of the second voice data into transmit voice packets.

Claim 58. (New) The circuit of claim 53 further comprising:
at least one signal coupling circuit for coupling voice signals from a two wire telephone network connection to the input of the analog to digital converter; and

the at least one signal coupling circuit for coupling voice signals from the output of the digital to analog converter to the two wire telephone network connection.

Claim 59. (New) A method of processing data representative of voice signals, the method comprising:

receiving first voice data representative of a first voice signal;
queuing the first voice data;
converting the first voice data into a first analog representation of the first voice signal;
converting a second analog representation of a second voice signal into second voice data;

removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data; and

adjusting operation of the queue based upon a propagation delay of a communication network.

Claim 60. (New) The method of claim 59 wherein removing comprises subtracting.

Claim 61. (New) The method of claim 59 wherein removing comprises delaying the portion of the first voice signal represented by the first voice data.

Claim 62. (New) The method of claim 59 wherein the portion removed comprises undesirable components of the first voice signal present in the second voice signal.

Claim 63. (New) The method of claim 59 further comprising:
processing received voice packets to produce the first voice data; and
processing the second voice data to produce transmit voice packets.

Claim 64. (New) The method of claim 59 further comprising adjusting operation of the queue according to a rate of packet arrival.

Claim 65. (New) The method of claim 59 further comprising:
coupling to a two-wire telephone network connection, voice signals representing the first analog representation of the first voice signal; and

coupling voice signals from the two wire telephone network connection to produce a voice signal representing the first analog representation of the first voice signal and the second analog representation of the second voice signal.

Claim 66. (New) A machine-readable storage, having stored thereon a computer program having a plurality of code sections for processing data representative of voice signals, the code sections executable by a machine for causing the machine to perform the operations comprising:

receiving first voice data representative of a first voice signal;

queuing the first voice data;

converting the first voice data into a first analog representation of the first voice signal;

converting a second analog representation of a second voice signal into second voice data;

removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data; and

adjusting queuing and converting the first voice data according to a propagation delay of a communication network.

Claim 67. (New) The machine-readable storage of claim 66 wherein removing comprises subtracting.

Claim 68. (New) The machine-readable storage of claim 66 wherein removing comprises delaying the portion of the first voice signal represented by the first voice data.

Claim 69. (New) The machine-readable storage of claim 66 wherein the portion removed comprises undesirable components of the first voice signal present in the second voice signal.

Claim 70. (New) The machine-readable storage of claim 66 wherein the operations further comprise:

processing received voice packets to produce the first voice data; and

processing the second voice data to produce transmit voice packets.

Claim 71. (New) The machine-readable storage of claim 66 wherein the operations further comprise:

coupling to a two-wire telephone network connection, voice signals representing the first analog representation of the first voice signal; and

coupling voice signals from the two wire telephone network connection to produce a voice signal representing the first analog representation of the first voice signal and the second analog representation of the second voice signal.

Claim 72. (New) A system for processing data representative of voice signals, the system comprising:

at least one processor that enables receiving first voice data representative of a first voice signal;

the at least one processor enabling queuing the first voice data;

the at least one processor enabling converting the first voice data into a first analog representation of the first voice signal;

the at least one processor enabling converting a second analog representation of a second voice signal into second voice data;

the at least one processor enabling removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data; and

wherein the at least one processor enables adjusting queuing and converting the first voice data according to a propagation delay of a communication network.

Claim 73. (New) The system of claim 72 wherein removing comprises subtracting.

Claim 74. (New) The system of claim 72 wherein removing comprises delaying the portion of the first voice signal represented by the first voice data.

Claim 75. (New) The system of claim 72 wherein the portion removed comprises undesirable components of the first voice signal present in the second voice signal.

Claim 76. (New) The system of claim 72 wherein the at least one processor enables processing of received voice packets to produce the first voice data, and enables processing of the second voice data to produce transmit voice packets.

Claim 77. (New) The system of claim 72 wherein the voice signals representing the first analog representation of the first voice signal are communicatively coupled to a two-wire telephone network connection, and voice signals from the two wire telephone network connection are communicatively coupled to produce a voice signal representing the first analog representation of the first voice signal and the second analog representation of the second voice signal.